

**U.S. Environmental Protection Agency**  
***FOIA.gov Feasibility Analysis Report***

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The logo for Project Performance Corporation features the word "PROJECT" in a small, dark blue, sans-serif font. Below it, the word "performance" is written in a larger, bold, green, sans-serif font. At the bottom, the word "CORPORATION" is written in a medium-sized, dark blue, sans-serif font.

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**Record of Changes/Version History**

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Version 1.0	11/23/2010	Initial Draft	Project Performance Corporation
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Version 3.1	01/14/2011	Revised Final	Environmental Protection Agency
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## EXECUTIVE SUMMARY

The Environmental Protection Agency's (EPA) Office of Environmental Information (OEI) Office of Information Collection (OIC) is conducting a feasibility analysis to assess whether a proposed, centralized government off-the-shelf (GOTS) Freedom of Information Act (FOIA) module is sound and cost-effective. Specifically, this analysis will compare the maintenance of the FOIA receipt, tracking, monitoring, and storage procedures currently used by the 94 FOIA-receiving federal agencies with the implementation of a centralized GOTS FOIA.gov module within the eRulemaking program.

### *Definition of Alternatives*

Alternative #1: FOIA Status Quo represents the current FOIA receipt, tracking, monitoring, and storage processes, as operated today by all 94 federal departments and agencies that receive FOIA requests. This Report provides a baseline of current costs to which the other alternative can be compared.

Alternative #2, an FOIA.gov module of eRulemaking, involves adding a module called FOIA.gov to the eRulemaking system to include a public-facing portal and centralized backend repository for FOIA receipt, tracking, monitoring, and storage. FOIA.gov incorporates many of the capabilities and functionalities inherent in the eRulemaking (regulations.gov) system and customizes the solution to meet the functionality needed by federal agencies and the public.

### *Computing the ROI, NPV, and Payback Period*

The costs, benefits, and risks of each alternative are identified in the accompanying cost model and are used to determine which alternative has the most desirable net present value (NPV),<sup>1</sup> return on investment (ROI),<sup>2</sup> and payback period.<sup>3</sup> After costs and benefits for each alternative are identified and adjusted for risks, they are compared in present value dollars over a five-year period. This analysis allows for costs, benefits, and risks to be adjusted for the period of time in which they occur. The table below summarizes the alternatives. Alternative #2: The FOIA.gov module of eRulemaking has the highest NPV, ROI, and lowest payback period. Leveraging a GOTS system to build FOIA.gov meets all major functionality requirements identified by OIC's team and provides additional opportunities to streamline business processes.

**Table 1: Summary of Alternatives**

Alternative	Discounted Cost (DC)	Discounted Benefit (DC)	Net Present Value (NPV)	Return on Investment (ROI)	Payback Period (in years)
<b>1: FOIA Status Quo</b>	128.199	0.000	-\$128,198,892.44	0.00	N/A
<b>2: FOIA.gov Module of eRulemaking</b>	11.365	23.669	\$12,304,256.83	2.08	3.51

<sup>1</sup> Net Present Value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows. NPV is used in capital budgeting to analyze the profitability of an investment or project.

<sup>2</sup> Return on Investment (ROI) is a performance measure used to evaluate the efficiency of an investment; to calculate ROI, the benefit (return) of an investment is divided by the cost of the investment; the result is expressed as a percentage or ratio.

<sup>3</sup> A Payback Period is the length of time required to cover the cost of an investment.

## **1.0 INTRODUCTION**

### **1.1 Feasibility Analysis Purpose**

Section 300 of the Office of Management and Budget's (OMB) Circular Number A-11 establishes the policy for planning, budgeting, acquisition, and management of federal capital assets. It also instructs major information technology (IT) investment business owners on how to justify their budgets and define requirements.

OEI's OIC is conducting a feasibility analysis to assess whether a proposed, centralized GOTS FOIA module is sound and cost-effective. The overall objective of this feasibility analysis is to evaluate the technical and cost feasibility of implementing a government-wide FOIA.gov module in eRulemaking. The analysis includes estimates of costs and benefits for each alternative, adjusting for risk and timing, in addition to discussing the advantages and disadvantages of each proposed alternative.

### **1.2 Feasibility Analysis Step-by-Step Process**

This document details the viable alternatives for receiving, tracking, monitoring, and storing FOIA requests. The Feasibility Analysis process is divided into the following steps:

1. Determine and define objectives and requirements.
2. Identify alternatives.
3. Conduct interviews with stakeholders and review background documentation.
4. Estimate costs and benefits for each alternative.
5. Adjust costs based on risk assessment.
6. Calculate ROI for each alternative.
7. Evaluate alternatives and provide recommendation.

This document is accompanied by a cost model detailing the cost-benefit analysis. Sections 2 through 10 of this document walk through this step-by-step process and conclude with a recommendation and rationale.

## 2.0 FOIA TRACKING AND PROCESSING IMPROVEMENT OBJECTIVES

### 2.1 Current FOIA Process

The FOIA ensures public access to federal agency records. Access may be to full or partial government records and documents. There are currently 94 federal departments and agencies that process FOIA requests. The United States Department of Justice (DOJ) estimates that approximately 500,000 FOIA requests are filed annually.

An FOIA request occurs when a member of the general public asks for records from the executive branch of the government. Agencies may charge fees for the search, duplication, review, and time spent preparing the FOIA request response. Each agency uses similar processes to assign a tracking number upon receipt of a request. The agency then identifies the correct records for the request and responds via hard copy or electronically. The agency retains all requests, response letters, and other corresponding documents in accordance with appropriate record retention schedules.

According to the DOJ Chief FOIA Officer Reports, a vast majority of agencies have recently begun to receive and track requests electronically; however, there are still a few agencies that track only by paper correspondence. In addition, the software used by each agency to track and process requests varies, from various commercial off-the-shelf (COTS) software programs, such as FOIAXpress and Privasoft, to leveraging Microsoft Suite. Currently, there are still a small number of agencies that use paper-based systems to receive, track, monitor, and store FOIA requests.

Generally, under the best conditions, an agency can respond quickly after a request is made and release the records requested. However, agencies operate on a first come-first serve basis, and almost all have a backlog of pending requests. Agencies are required to process simple requests in less than 20 days. If the request requires more work, the agency will notify the individual that it requires additional time to complete the search and review process. If the request has not been processed in the extended time period and the agency has not documented an extension, the individual making the request may file an administrative appeal or lawsuit.

Over the years, the FOIA process has gone through significant changes. While more proactive disclosures are being made, in response to President Obama's "Freedom of Information Act" and "Transparency and Open Government" memoranda, the process lacks much desired functionality and ability to quickly identify and release documents to the public electronically after they are the subject of a request.<sup>4</sup> Each of the 94 FOIA processing agencies may have their own procedures for receiving, tracking, monitoring, and storing FOIA request information. While a majority of these agencies report improvements and large reduction in backlogs due to upgrades in technology, increases in staff, and more comprehensive training, some agencies must still rely solely on paper-based processes. These agencies may also experience difficulty making proactive disclosures to the general public and be subject to longer delays in responding to complex or voluminous requests.

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<sup>4</sup> Obama, Barack. "Freedom of Information Act Memorandum for the Heads of Executive Departments and Agencies." Accessed December 14, 2010. < [http://www.whitehouse.gov/the\\_press\\_office/FreedomofInformationAct/](http://www.whitehouse.gov/the_press_office/FreedomofInformationAct/) >  
Obama, Barack. "Transparency and Open Government Memorandum for the Heads of Executive Departments and Agencies." Accessed December 14, 2010. < [http://www.whitehouse.gov/the\\_press\\_office/TransparencyandOpenGovernment/](http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment/) >

## 2.2 Goals and Priorities

Federal agencies can benefit by having a comprehensive, centralized FOIA solution to manage tracking, monitoring, and storing FOIA requests. High-level requirements include the following:

- Streamline and automate business processes.
- Deploy user-friendly technology.
- Increase transparency and accessibility of information to the public.
- Increase user satisfaction.
- Enhance the quality of reports.
- Meet security and conformance standards.

### 3.0 DEFINITION OF ALTERNATIVES

Based on current and future-state business process requirements, data, and stakeholder input, two alternatives have been identified for this Feasibility Analysis:

1. FOIA Status Quo
2. FOIA.gov Module built on the eRulemaking platform

Details of each alternative are listed below. All alternatives strive to align not only with the OIC team's requirements, but also the overall Agency strategic goals and targets.

#### 3.1 Alternative #1: FOIA Status Quo

Alternative #1, the FOIA Status Quo, represents using agency FOIA processes as administered today. According to the March 2010 United States DOJ Chief FOIA Officer Reports, thirteen agencies use a COTS product, FOIAXpress, to track and manage FOIA requests.<sup>5</sup> EPA's "BY 2012 CPIC Lite Proposal Form" states that FOIAXpress "provides services to FOIA users and administrators through Web-based intranet access."<sup>6</sup> FOIAXpress has the capability to track correspondence and generate a variety of activity reports. The remaining agencies typically use one of several COTS tools, internally developed applications, Microsoft Office Suite, or paper-based methods to track and process FOIA requests.

According to the *United States DOJ's Office of Information Policy's FOIA Post*, "Summary of Annual FOIA Reports for Fiscal Year 2009," the total federal FOIA spending for 2009, including the actual processing, information gathering, and response development to the FOIA request, was approximately \$382 million.<sup>7</sup> Agencies without support of an application, like FOIAXpress, have limited reporting capabilities and must often rely completely on manual processes to create reports. While the current FOIA processes have some limitations, they continue to meet the most basic FOIA requirements.

#### PROS

- Meets federal FOIA tracking and reporting requirements
- Established workflows at all 94 FOIA-receiving agencies
- Will not require additional training
- Autonomy in managing agency's processing system
- Agencies own their data

#### CONS

- Lacks central repository for housing responsive records
- High cost to maintain 94 separate systems
- Reliance on manual efforts
- Public must go to 94 agencies to file requests
- Cannot electronically share requests between agencies

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<sup>5</sup> "Chief FOIA Officer Reports." United States Department of Justice. March 2010. <<http://www.justice.gov/oip/reports.html>>

<sup>6</sup> "FOIAXpress BY 2012 CPIC Lite Proposal Form." OEI/OIC/CSD. August 26, 2010.

<sup>7</sup> "Summary of Annual FOIA Reports for Fiscal Year 2009." United States Department of Justice Office of Information Policy FOIA Post. June 4, 2010. <<http://www.justice.gov/oip/foiapost/2010foiapost18.htm>>.



### **3.2 Alternative #2: FOIA.gov Module of eRulemaking**

Alternative #2 represents adding an FOIA module (as a GOTS application) to the federal eRulemaking system. The FOIA module, called FOIA.gov, allows members of the public to submit an FOIA request to any federal agency and set up an account to track their request. In addition to a public-facing portal, the module includes a backend where responsive documents can be stored in a centralized repository, including those which have been redacted. Federal employees can create a secure agency login based on user roles to streamline workflow and utilize reporting tools to meet FOIA program needs. Although all data attached to a single tracking number resides in the FOIA module, the applicable agency retains ownership of their data.

The eRulemaking system is an existing platform used by both the general public (through regulations.gov) and federal agencies. Regulations.gov was established in 2003. It provides public access to the federal rulemaking process. The public can submit comments on rules which are transmitted to the relevant agencies. The eRulemaking project management office is investigating cloud-based secondary storage services in accordance with OMB-suggested criteria. By using this system as the basis for FOIA.gov, there is already a uniform, centralized backend repository available.

Regulations.gov has been widely accepted by the public, with an average of 15 million hits and 16,000 public comments per month.<sup>8</sup> The adaptability and scalability of eRulemaking should allow the FOIA workflow to readily interface and integrate within the eRulemaking environment. Based on the success of regulations.gov, if properly implemented, an FOIA.gov module is also likely to be widely accepted by federal users and the public.

An FOIA.gov module provides an extensive range of tools to federal agencies. Capabilities include the following:

- Track expedited, complex, and simple FOIA requests and when responses are due
- Centralized backend repository to store FOIA requests, responses, related correspondence, and responsive records in accordance with agency record retention schedules
- Records and content management tools to improve decision making and streamline project coordination
- Department of Defense (DoD) Standard 5015.2 reporting capabilities to include ad hoc reports and Annual FOIA reporting for the DOJ
- Automated, electronic redactions of documents

An FOIA.gov module also provides the public a robust, central, one-stop public portal and repository to submit and track FOIA requests and to review information posted by agencies. The number of FOIA requests has decreased in recent years as more information has been made available by the government via the Web. Through an FOIA.gov module, responsive documents would be posted and made available to the public before additional FOIA requests are needed. FOIA.gov increases transparency by automatically publishing information for public viewing.

The OIC team will leverage the reusable components already inherent in eRulemaking, including the existing database, content server, and PDF conversion server. Due to the numerous capabilities that can be leveraged from regulations.gov, it is likely that an FOIA module of eRulemaking requires only

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<sup>8</sup> "OMB BY2012 eRulemaking Exhibit 300." November 4, 2010.

minimal customization to meet agency needs. As customization increases, so does the cost and risk of the solution implementation. Screens will be customized to the FOIA processes and the framework will be updated using Adobe Flex.

However, if leveraging a GOTS solution immensely changes the organization's workflow processes, there is a much greater risk of low user acceptance without proper training and helpdesk support for each of the 94 agencies receiving FOIA requests. User acceptance of a GOTS solution, such as an FOIA module of eRulemaking, depends largely on the solution meeting the users' business processes.

#### **PROS**

- Meets federal FOIA tracking and reporting requirements
- Central, standardized repository for FOIA information that is easily accessible by both federal employees and the public
- Cost savings if customization is limited
- eRulemaking has already funded a major portion of development and identified lessons learned
- Scalable, flexible, and will provide a robust platform to meet new requirements as they evolve
- Allows agencies to consult or refer requests electronically to other agencies
- Public can submit requests to multiple agencies at once
- Supports the guidelines outlined in President Obama's "Freedom of Information Act" memorandum<sup>9</sup>

#### **CONS**

- Adaptation of an FOIA.gov module could change the current workflow and work habits of many FOIA employees
- Requires training
- Agencies lose autonomy
- May require technical infrastructure changes

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<sup>9</sup> Obama, Barack. "Freedom of Information Act Memorandum for the Heads of Executive Departments and Agencies." Accessed December 14, 2010. < [http://www.whitehouse.gov/the\\_press\\_office/FreedomofInformationAct/](http://www.whitehouse.gov/the_press_office/FreedomofInformationAct/)>

## 4.0 ESTIMATE COSTS FOR EACH ALTERNATIVE

According to OMB's Capital Programming Guide, "credible cost estimates are vital for sound management decision making and for any program/capital project to succeed."<sup>10</sup> A cost estimating process enables investment managers to effectively plan, manage, and monitor investment performance. Cost data were collected in four broad categories for each alternative:

- **Planning:** costs of requirements gathering, design, and acquisition
- **Development:** costs of hardware and software acquisition, systems and application development, deployment, and testing
- **Operations and Maintenance (O&M):** costs of maintaining and operating the solution to include administration costs, user support, security, hosting, and training
- **Government Full-Time Equivalent (FTE) Costs:** costs of program management and oversight

This cost information was obtained from historical organization data, market research and competitive sourcing data, current costs, and interviews with current system managers. Costs are calculated for a five-year period from FY 2011 through FY 2015. Please refer to the cost model that accompanies this report for the cost details of each alternative.

The first breakout of costs, shown below in Tables 2 and 3, highlights the annual cost breakdown by cost category for each alternative. Costs are broken down into four cost element categories, as defined in the Capital Planning and Investment Control (CPIC) Exhibit 300 summary of spending table: planning, acquisition, O&M, and government FTEs.

### 4.1 Life Cycle Cost Analysis by Element

The costs represented for Alternative #1, the FOIA Status Quo, are based on estimated current costs at all FOIA-receiving agencies and departments to keep the FOIA receipt, tracking, monitoring, and storage systems or processes functioning as they are today. This alternative is based on data gathered from the "FOIAXpress BY 2012 CPIC Lite Proposal Form" for FY 2011, in addition to conservative estimates of the labor necessary to track, respond to, and store FOIA requests within federal requirements. The cost estimate does not include time to process the actual FOIA request and gather all applicable response information. Report authors assume that all Microsoft Suite licenses would be leveraged from their respective agencies to respond to FOIA requests, if applicable.

There are no planning costs for the Status Quo because the Report authors assume all agencies receiving and processing FOIA requests have a product or process in place that only requires minor enhancements or updates. Some agencies may be looking to procure new systems; that development cost is not included in this document. Development data is based on the planning and acquisition data available in the "FOIAXpress BY 2012 CPIC Lite Proposal Form" for FY 2011. Each of the 13 agencies that use FOIAXpress pay licensing and maintenance fees for the use of the product. In addition, .25 of an FTE is added for the 81 agencies that do not currently use FOIAXpress to conduct upgrades, enhancements, and testing. O&M costs are once again estimated based on labor hours and include

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<sup>10</sup> Capital Programming Guide v2.0, Supplement to OMB Circular A-11, Part 7. June 2006.

security, training, helpdesk, and administration support in addition to the FOIAXpress O&M costs for all 13 FOIAXpress-using agencies. Finally, .5 of an FTE was added under the government FTE cost category for overall program management support of each agency's unique system or process.

Alternative #2 costs are based on industry knowledge, data collected by EPA staff, and preliminary research of building an FOIA.gov module within the eRulemaking framework. The report authors assumed one contract senior systems engineer should be assigned to plan and design the FOIA.gov module for FY 2011 and FY 2012. A senior systems engineer currently bills at a rate of \$150/hr. Development costs are based on industry knowledge, FOIA.gov requirements, and analysis of EPA's "Preliminary FOIA estimate," provided as an appendix to the "Electronic FOIA Response Utilizing FDMS Framework Analysis." The solution could be live by FY 2012, but additional deployments will take place through FY 2013 as more agencies transition to using the FOIA.gov module. Enhancements will be ongoing after FY 2013. The report authors estimated that four system analysts are needed for implementation of the GOTS solution to meet all agency FOIA functionality needs during FY 2011 and FY 2012 and decreases over time. This includes requirements development and validation, deployment, implementation, minor enhancements, data conversion, and configuration. Software acquisition includes Adobe Flex licensing costs for each developer, which cost approximately \$200 per developer according to subject matter and technical experts. Adobe Flex will be used to create new screens and update the existing framework. An additional .5 contracted FTE will be needed for testing from FY 2011 to FY 2013. At this time, it is assumed that data entry (to preserve data integrity as data is migrated from the legacy systems to the FOIA.gov module, if necessary) will be conducted and funded by each FOIA-receiving agency on an as-needed basis.

O&M costs start in FY 2012, when the module is in production, and will include a Working Capital Fund (WCF) charge for hosting at the EPA NCC. This charge includes application support and database hosting. The report authors assumed all backlogged FOIA requests would have to be migrated when the agency comes online. Based on the DOJ's FOIA Post, approximately 68,000 FOIA requests were backlogged in 2009 in addition to the approximately 500,000 new FOIA requests received and stored each year. Assuming each FOIA request is a color PDF of approximately 10 pages, the Report authors estimated that if 3,307 GB of data need to be stored at the NCC at a cost of \$0.086 per GB per month during FY 2011, the total would be approximately \$35,000. One contracted FTE was also included in O&M to support training and helpdesk support. The report authors assumed that while the EPA would be responsible for providing some training and communications outreach materials, FOIA-receiving agencies would augment that by training their staff to use the new technology within their agency's environment. Therefore, training and helpdesk costs decrease over time. Government FTE costs are based on having three FTEs in FY 2011 and FY 2012 to support project management, system administration support, change control boards, and IT governance. This alternative includes a minimal degree of customization.

**Table 2: Annual Costs for Alternative #1 – FOIA Status Quo**

<i>Alternative 1: FOIA Status Quo*</i>						
Cost Element	FY2011	FY2012	FY2013	FY2014	FY2015	Total
Planning	0.000	0.000	0.000	0.000	0.000	0.000
Development	4.327	4.457	4.591	4.729	4.870	22.974
FOIAXpress	1.391	1.433	1.476	1.520	1.566	
Additional Support	2.936	3.024	3.115	3.209	3.305	
O&M	10.111	10.414	10.726	11.048	11.379	53.678
FOIAXpress	4.238	4.365	4.496	4.631	4.770	
Additional Support	5.873	6.049	6.230	6.417	6.610	
Government FTEs	3.408	3.510	3.615	3.723	3.835	18.091
Program Support	6.815	7.019	7.230	7.447	7.670	
<b>Total</b>	<b>17.845</b>	<b>18.381</b>	<b>18.932</b>	<b>19.500</b>	<b>20.085</b>	<b>94.743</b>

**Table 3: Annual Costs for Alternative #2 – FOIA.gov Module of eRulemaking**

<i>Alternative #2: FOIA.gov Module of eRulemaking*</i>						
Cost Element	FY2011	FY2012	FY2013	FY2014	FY2015	Total
Planning	0.288	0.297	0.000	0.000	0.000	0.585
Development	1.297	1.335	0.764	0.393	0.203	3.992
Systems and Application Development	1.152	1.187	0.611	0.315	0.162	
Software Acquisition	0.001	0.000	0.000	0.000	0.000	
Testing	0.144	0.148	0.153	0.079	0.041	
O&M	0.000	0.948	0.971	1.000	0.706	3.624
Hosting	0.000	0.171	0.176	0.182	0.187	
Administration Costs	0.000	0.148	0.153	0.157	0.162	
Storage	0.000	0.035	0.030	0.031	0.032	
User Support	0.000	0.297	0.306	0.315	0.162	
Training	0.000	0.297	0.306	0.315	0.162	
Government FTE Costs	0.435	0.448	0.231	0.238	0.245	1.596
Program Support	0.435	0.448	0.231	0.238	0.245	
<b>Total</b>	<b>2.020</b>	<b>3.028</b>	<b>1.965</b>	<b>1.631</b>	<b>1.153</b>	<b>9.797</b>

## 5.0 ESTIMATE QUANTITATIVE BENEFITS FOR EACH ALTERNATIVE

The benefits of all considered alternatives must include an assessment of the value of the functionality provided by the system or process to the business. This utility is expressed in both quantitative and qualitative categories. Quantitative benefits are those that result in a tangible cash benefit and for which reasonable dollar values can be estimated in areas such as labor, development, and O&M costs. Monetary values can be calculated for each of the identified quantitative benefits and are accounted for explicitly in the cost model.

### 5.1 Quantitative Benefit 1: Reduction in Staff Time and Administrative Costs due to Improved Records Management Capabilities

This benefit relates to each alternative's ability to achieve cost savings through a reduction in staff hours that would have to be spent storing, processing, and retrieving FOIA request information if DoD Standard 5015.2 records management capabilities were not available to all 94 FOIA-receiving agencies. Without a comprehensive records management process, agency staff must spend more time processing and performing the basic functions of FOIA in addition to creating reports and fulfilling other FOIA requirements. DoD Standard 5015.2 compliant records management capabilities, such as those capabilities available in an FOIA.gov module, provide all agencies with additional functionality that could potentially streamline the current FOIA processes and make information disclosure to the public faster and more efficient. In addition to making it much easier for federal employees and the public to retrieve information, a records management system would promote standardized processes, reduce errors, and increase efficiency by automating the current agency workflows. For example, with the single click of a button, FOIA Officers will be able to produce their Annual FOIA Reports, fulfilling the DOJ requirement. All agencies that do not currently have an IT system for receiving, tracking, monitoring, and storing FOIA requests will be able to leverage FOIA.gov for increased automation of business processes. Storage, mail, and Fed-Ex costs will decrease as agencies move from paper-based to electronic processes. The Report authors estimate that .25 hours would be saved per FOIA request if the FOIA-receiving agencies were to adopt more DoD Standard 5015.2, scalable records management capabilities.

Details regarding the calculations in Table 4 below are available in the "FOIA.gov Feasibility Analysis Cost Model." The report authors phased the accrual of the benefit across the system life cycle of the alternatives. Alternative #1, the FOIA Status Quo, accrues no benefit because, at this time, FOIA-receiving agencies are not using DoD Standard 5015.2, records management capabilities. Alternative #2, an FOIA.gov module of eRulemaking, accrues the .25 hour cost savings over time. In FY 2011, Alternative #2 accrues no benefit because the system will not be in production. In FY 2012, Alternative #2 only accrues 25 percent of the benefit because only a portion of all FOIA-receiving agencies will be using the FOIA.gov module. In addition, staff at these agencies will need to be trained in how to use the FOIA.gov module. By FY 2015, Alternative #2 accrues the full benefit. The report authors assumed that all 94 FOIA-receiving agencies will be using the FOIA.gov module of eRulemaking by FY 2015.

**Table 4: Reduction in Staff Time and Administrative Costs due to Improved Records Management Capabilities**

<i>Alternative #1: FOIA Status Quo</i>			<i>Alternative #2: FOIA.gov Module of eRulemaking</i>		
<b>Year</b>	<b>% Reduction</b>	<b>Value Added</b>	<b>Year</b>	<b>% Reduction</b>	<b>Value Added</b>
<b>FY2011</b>	0%	0.000	<b>FY2011</b>	0%	\$0.000
<b>FY2012</b>	0%	0.000	<b>FY2012</b>	25%	\$2.893
<b>FY2013</b>	0%	0.000	<b>FY2013</b>	50%	\$5.786
<b>FY2014</b>	0%	0.000	<b>FY2014</b>	75%	\$8.679
<b>FY2015</b>	0%	0.000	<b>FY2015</b>	100%	\$11.572
<b>Total</b>	<b>\$0.0000</b>		<b>Total</b>	<b>\$28.9289</b>	

## 6.0 DOCUMENT ALL ASSUMPTIONS

The following substantive assumptions were used when estimating the costs for each alternative:

- The start year is FY 2011.
- The discount rate is seven percent.
- A standard three percent inflation rate will be applied to all labor and hardware costs in FY 2012 and beyond.
- Contracted system analysts, programmers, and senior system engineers are estimated at approximately \$150/hour.
- EPA's loaded annual salary in FY 2011 is approximately \$145,000.
- Each FOIA report is approximately 10 pages in length and stored as a color PDF copy.
- On average, it takes 2.5 hours to complete an FOIA request.
- Current FOIA processes are in full effect with only minor enhancements, as needed. No additional planning or design is required at this time.
- The proposed FOIA.gov solution will meet all OIC business and technical requirements in addition to meeting the current process requirements.
- The process of developing, vetting and issuing a solicitation, performing vendor selection, and awarding a contract will take two months for this alternative.
- Project management for an FOIA.gov module of eRulemaking will be supported by internal EPA FTEs.
- An FOIA.gov module of eRulemaking is live by FY 2012, but it will still need enhancements throughout the project life cycle.
- An FOIA.gov module of eRulemaking requires minimal customization to meet FOIA functionality needs.
- Adobe Flex would be used to create screens for an FOIA.gov module of eRulemaking.
- Only open and backlogged FOIA requests/cases will need to be migrated from their respective agencies or departments to the FOIA.gov module of eRulemaking. Additional historical data migration and conversion will be decided based on the discretion and funding of the applicable agencies and departments.
- An FOIA.gov module of eRulemaking would be hosted at the NCC. All hardware costs (servers) are inherent in the WCF charge.
- Contractors will perform training and helpdesk support for the FOIA.gov solution.
- System security work for an FOIA.gov module of eRulemaking will be completed by the eRulemaking Project Management Office.
- The cost estimate does not include the DOJ FOIA dashboard at this time; however, this document does include internal and external facing automated reports.
- Data entry (to preserve the integrity of historical data) is not included in the cost estimate at this time and is assumed to be completed by the applicable agencies.



## 7.0 ADJUST COSTS BASED ON RISK ASSESSMENT

A risk-adjusted return on investment should be compared for each alternative in order to determine which one is the best solution. This puts the alternatives on equal footing from a cost perspective, as it will account for the increased complexity of a particular alternative that may not be represented accurately without the risk adjustment. For the purposes of this analysis, risk is defined at a high level and is determined by those factors that would have the most significant impact on the alternatives from a cost perspective, should they be realized.

Risks were quantified based on the probability of occurrence multiplied by the cost if the risk occurs. In order to make a conservative estimate, if the risk were to occur, we assumed a doubling of the costs (having to entirely rework). This technique was chosen based on the type of projects that are being compared. This does not underestimate or overestimate quantified risks as the probability of total rework is lower than the probability of partial rework. For example, a five percent probability of occurrence of total rework of a \$100,000 cost (\$5,000) is no different than a 20 percent probability of having to rework only a portion of the cost (20 percent of \$25,000 = \$5,000 cost if the risk occurs). Table 5 below highlights the percentages associated with the probability of each of the risks identified in this analysis:

**Table 5: Risk Impact**

Risk Probability	Value
Not Likely	10%
Low Probability	25%
Likely	50%
Highly Likely	75%
Near Certainty	90%
Not Applicable	0%

In addition, Table 6 below highlights the total risk adjustment for each alternative with a summary by risk area and probability of occurrence. Definitions of each risk area can be found on the following page.

**Table 6: Risk Percentages by Alternative**

Risk Probability of Occurrence		
Life Cycle Risk Area	Alternative 1: FOIA Status Quo	Alternative 2: FOIA.gov Module of eRulemaking
Business Impact	25%	10%
Resource Availability	10%	25%
Management and Oversight	10%	10%
Technical Issues	25%	10%
Security	10%	10%

### ***Business Impact***

The risk estimated in the category business impact is based on the probability that the system or package in its current state could fail. This failure may be caused by unknown or unanticipated factors. The business impact risk for the FOIA Status Quo is higher than the FOIA.gov module, at 25 percent, because the current FOIA process has continued to have backlog issues and high overall agency costs due to individual agencies attempting to update and improve their individual FOIA processes using various technologies, increases in staff, and agency-specific training programs. Inefficiencies within the current system exist primarily because of the lack of a uniform process among all 94 agencies. On the other hand, the business impact risk estimated for the FOIA.gov eRulemaking module is low because the eRulemaking system utilizes current technology and has been tried and tested successfully through regulations.gov.

### ***Resource Availability***

The category of resource availability encompasses the risk associated with resources required to staff the system or process not being available. As with any change to an existing system or process, dedicated resources will be critical to the success of the system. The resources required to interface with the new system component or process and help facilitate the new process are also directly linked to the level of complexity of each alternative. The FOIA.gov module solution requires higher risk, at 25 percent, since it may necessitate extensive system training due to workflow and process changes and oversight for individual agencies, or components, to perform data migration and maintain data integrity.

### ***Management and Oversight***

The category of management and oversight accounts for the risk that is encountered with trying to secure resources to oversee and manage a new system, system component, or process. The FOIA agencies currently have abundant legacy resources to oversee and manage both the current FOIA Status Quo and the new FOIA.gov module. This is primarily due to the current management structure of the FOIA process and current FOIA employees.

### ***Technical Issues***

The category of technical issues is directly related to the amount of technology upon which the solution is dependent. With the implementation of any new technology, there is risk of technical issues, from integration issues to issues with people relying on the technology. In the cost model, technical issue risk was derived from planning, acquisition, and O&M costs, each of which directly relates to acquiring and implementing a technological solution. The FOIA Status Quo has a higher degree of technical risk because each agency differs on the type of hardware and software it uses for the FOIA process. According to the "Summary of Agency Chief FOIA Officer Reports with Findings and OIP Guidance for Improvement," FOIA is currently managed by a wide array of systems based on Microsoft Office programs and FOIA specific technology.<sup>11</sup> Without a single platform, it becomes very difficult to update the system to run current technology and improve efficiency. The FOIA.gov module solution has low risk since it is already based on a preexisting system that is successfully in use.

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<sup>11</sup> "Summary of Agency Chief FOIA Officer Reports with Findings and OIP Guidance for Improvement." (<http://www.justice.gov/oip/foiapost/2010foiapost23.htm>). Dated July 29, 2010.

### **Security**

In today's world, IT Security and security of data is critical to any government system. FOIA responses are not confidential and open to the public. The report authors assumed that the FOIA.gov solution meets agency security needs, as security requirements would be handled by the eRulemaking Project Management Office.

Table 7 below highlights the costs (in millions) estimated if these risks were to occur.

**Table 7: Total Risk Adjustment by Risk Category**

Total Risk Adjustment by Risk Category (Cost if Risk Occurs)		
Life Cycle Risk Area	Alternative #1: FOIA Status Quo	Alternative #2: FOIA.gov Module of eRulemaking
Business Impact	23.69	0.98
Resource Availability	1.81	0.40
Management and Oversight	7.67	0.82
Technical Issues	13.42	0.36
Security	5.37	0.36
Total	51.9473	2.9235

## 8.0 NET PRESENT VALUE CALCULATIONS

After costs and benefits for each alternative have been identified and adjusted for risks, they need to be compared in present value dollars. This analysis allows for costs, benefits, and risks to be adjusted for the period of time when they occur. A cost or benefit in year one has a different present value than an equal cost or benefit in an out year. For purposes of this analysis, seven percent discount rates were applied to all out year costs (risk adjusted) and quantifiable benefits, per the OMB Circular A-94 requirement. Table 8 below summarizes the data for each alternative.

**Table 8: Cumulative Costs and Benefits of Each Alternative**

<i>Alternative 1: FOIA Status Quo</i>							
Year	Annual Cost (AC)	Risk Adjusted Annual Cost (RAAC)	Annual Benefit (AB)	Discount Rate (DR)	Discounted Cost (DC)	Discounted Benefit (DB)	Net Present Value (NPV)
<b>FY2011</b>	17.845	27.630	0.000	1.000	27.630	0.000	-27.630
<b>FY2012</b>	18.381	28.459	0.000	0.935	26.597	0.000	-26.597
<b>FY2013</b>	18.932	29.312	0.000	0.873	25.603	0.000	-25.603
<b>FY2014</b>	19.500	30.192	0.000	0.816	24.645	0.000	-24.645
<b>FY2015</b>	20.085	31.098	0.000	0.763	23.724	0.000	-23.724
<b>Total</b>	<b>94.743</b>	<b>146.690</b>	<b>0.000</b>		<b>128.199</b>	<b>0.000</b>	<b>-128.199</b>

<i>Alternative 2: FOIA.gov Module of eRulemaking</i>							
Year	Annual Cost (AC)	Risk Adjusted Annual Cost (RAAC)	Annual Benefit (AB)	Discount Rate (DR)	Discounted Cost (DC)	Discounted Benefit (DB)	Net Present Value (NPV)
<b>FY2011</b>	2.020	2.489	0.000	1.000	2.489	0.000	-2.489
<b>FY2012</b>	3.028	3.890	2.893	0.935	3.635	2.704	-0.932
<b>FY2013</b>	1.965	2.587	5.786	0.873	2.260	5.054	2.794
<b>FY2014</b>	1.631	2.193	8.679	0.816	1.790	7.084	5.295
<b>FY2015</b>	1.153	1.561	11.572	0.763	1.191	8.828	7.637
<b>Total</b>	<b>9.797</b>	<b>12.720</b>	<b>28.929</b>		<b>11.365</b>	<b>23.669</b>	<b>12.304</b>

## 9.0 EVALUATE ALTERNATIVES

After costs and benefits for each alternative have been identified and adjusted for risk, they need to be compared in present value dollars. This analysis allows for costs, benefits, and risks to be adjusted for the period of time when they occur based on a life cycle of five years. A cost or benefit in year one has a different present value than an equal cost or benefit in an out year. For the purposes of this analysis, a seven percent discount rate was applied to all out year costs (risk-adjusted) and quantifiable benefits.

Three quantitative methods (i.e., computing NPV, ROI, and payback period) of evaluation were used in this analysis to help validate the FOIA.gov team's path forward with the potential investment. Each alternative was thoroughly assessed and analyzed to ensure that all feasible options were examined prior to determining future FOIA receipt, tracking, monitoring, and storage strategies. In addition to the quantitative analysis, detailed qualitative analysis can be found in Section 3 of this document.

The following table presents the findings of the quantitative analysis. Alternative #2 includes the cost of concurrently running an agency's current system for the full fiscal year during which FOIA.gov is scheduled to be deployed. Explanations and supporting details of each evaluator are presented as well.

**Table 9: Summary of Alternatives**

Alternative	Discounted Cost (DC)	Discounted Benefit (DC)	Net Present Value (NPV)	Return on Investment (ROI)	Payback Period (in years)
<b>1: FOIA Status Quo</b>	128.199	0.000	- \$128,198,892.44	0.00	N/A
<b>2: FOIA.gov Module of eRulemaking</b>	11.365	23.669	\$12,304,256.83	2.08	3.51

### 9.1 Net Present Value

NPV measures the net "value" of an investment in present terms. The NPV analysis identified Alternative #2, an FOIA.gov module of eRulemaking, was the best alternative with a NPV of \$12,304,257. The NPV takes into account all risk-adjusted costs and benefits and adjusts for time.

### 9.2 Return on Investment

ROI is the ratio of investment gains relative to investment costs and is used to measure the efficiency of an investment. An ROI greater than 1.0 indicates an investment with positive returns. The ROI analysis highlighted Alternative #2 as the most valuable alternative with an ROI of 2.08.

### 9.3 Payback Period

Payback period measures the time required for investment gains to exceed investment costs. The payback period for each alternative is evaluated as a total risk-adjusted cost for the alternative divided by the average annual benefit provided by the alternative. An investment will result in payback when the life cycle ROI exceeds 1.0.

## **10.0 RECOMMENDATION**

The qualitative and quantitative analysis in this report shows that it is in the best interest of the 94 FOIA-receiving agencies to implement an FOIA.gov module in eRulemaking to meet FOIA receipt, tracking, monitoring, and storage requirements. The FOIA.gov module has the highest NPV, highest ROI, and the shortest payback period in addition to the most qualitative advantages. Based on quantitative and qualitative analysis, an FOIA.gov module of eRulemaking is technically and financially feasible and is recommended for future FOIA receipt, tracking, monitoring, and storage functionality.